CALIFORNIA
ENERGY
COMMISSION

FINAL STAFF ASSESSMENT ADDENDUM
SALTON SEA
GEOTHERMAL UNIT #6
POWER PROJECT

Application For Certification (02-AFC-2)
Imperial County

STAFF REPORT

October 2003
(02-AFC-2)

Gray Davis, *Governor*

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Energy Commission staff published the Final Staff Assessment (FSA) for the Salton Sea Unit 6 (SSU6) project in two parts; Part 1 on August 5, 2003 and Part 2 on September 26, 2003. Part 1 contained all technical sections except Air Quality and Alternatives. Part 2 contained Air Quality, Alternatives and an amended Public Health section. Public workshops on the FSA were held on August 19, 2003, October 1 and October 9, 2003. The applicant, CE Obsidian Energy, LLC (CEOE) has provided written comments and additional information at the workshops. In addition federal and state agencies have provided input at the workshops, and the Imperial County Air Pollution Control District has provided written comments on the FSA. The following is the resulting staff response to the applicant's submitted suggestions and review of the FSA documents. The primary format for these responses is underline/strikethrough format, so that appropriate comparisons can be made.

AIR QUALITY

Supplemental Testimony of William Walters and Lisa Blewitt

Based on applicant and Imperial County Air Pollution Control District (District) comments on the FSA (CEOE 2003d, District 2003c) and discussions at the FSA workshop, staff has agreed to certain changes to conditions **AQ-C3o)**, **AQ-C7**, **AQ-1** through **AQ-3**, **AQ-5** and **AQ-28** requested by the applicant and/or the District. Staff has also revised the reporting schedule for staff condition **AQ-C13**.

Staff is providing errata regarding the revised State PM_{10} standard and information regarding the current implementation status of the State and Federal $PM_{2.5}$ standards, and errata to the Environmental Justice section and adequacy of proposed mitigation discussions. While the revised California Ambient Air Quality Standards (CAAQS) annual PM_{10} standard was correctly provided in **Air Quality Table 1** and some other sections of the report, it was not consistently updated, so the errata provided corrects that oversight. A correction of the $PM_{2.5}$ standard implementation description and background data interpretation is provided in the errata. Finally, errata to the Environmental Justice section and the discussion of the adequacy of the proposed commissioning emissions mitigation includes staff's final revisions that were inadvertently left out of the FSA.

DESCRIPTION OF PROPOSED REVISIONS

CONDITIONS OF CERTIFICATION

The applicant and the District, verified by electronic correspondence from the District on October 7, 2003, have asked staff to remove California Air Resources Board (CARB) and U. S. Environmental Protection Agency (USEPA) from the submission list for the commissioning plan Conditions of Certification verifications (**AQ-1** through **AQ-3**). Staff has agreed that the District and the Energy Commission can properly review and

enforce the commissioning plan, and has deleted the reference to these two agencies in these three conditions.

The applicant has requested a clarification in Condition of Certification **AQ-5**, to state that all of the H_2S Emission Reduction Credits (ERCs) shown in that condition's Table A will come from emission reductions currently being developed from the Leathers geothermal power plant, as opposed to the PM_{10} ERCs that will come from existing sources in the District's offset bank. Staff has agreed to clarify this table.

The applicant requested flexibility regarding staff's ultra-low sulfur fuel requirements in staff conditions **AQ-C3 o)** and **AQ-C7**. Staff has agreed to require the ultra-low fuel when it becomes available at local fuel terminals. In order to agree to this relaxed fuel sulfur requirement staff has proposed to update the diesel engine control requirements condition to be the same as that agreed to on other recent projects. The revision to the diesel engine control requirements requires engines larger than 50 brake horsepower (bhp) comply with the condition, reduced from 100 bhp, and also clarifies the language in the condition to require CARB/USEPA certified Tier 1 equipment "or" the use of soot filters as well as defining terms used in the condition for compliance determination. In revising **AQ-C3 o)** staff has wholly incorporated subparts **o), p), q)** and **r)** into the revised subpart o), which causes the remaining condition subparts which were formerly lettered **s)** through **z)** to now be lettered **p)** through **w)**.

Staff has determined that it is appropriate to revise the schedule for the submittal of the Ammonia Control Technology and Alternative Water Source Report Condition **AQ-C13** requiring the project owner to periodically report on the assessment of the availability of cost effective control technologies or alternative water sources to control the project's estimated 2,700 tons of ammonia emissions from the cooling towers, is appropriate. Staff has also corrected the reference to Condition **AQ-C12**.

The applicant and the District have asked that District Condition **AQ-28** be revised with language suggested in the October 7, 2003 communication. Staff has incorporated the Districts revised condition.

The revised conditions of certification have been provided at the end of this Air Quality addendum.

PM_{10} Standard Errata

Air Quality Tables 22, **23** and **24** on Pages 2.1-34, 2.1-35 and 2.1-37 of the FSA, respectively, should be corrected to reflect the current annual PM_{10} CAAQS as follows:

AIR QUALITY Table 22
Applicant Construction Modeling Results

Pollutant	Averaging Period	Project Impact ($\mu g/m^3$)	Background Concentration ($\mu g/m^3$) [a]	Total Impact ($\mu g/m^3$)	Limiting Standard ($\mu g/m^3$)	Type of Standard	Percent of Standard (%)
NO_2 [b]	1-Hour	268	180	448	470	CAAQS	95
	Annual	5.2	19	24.2	100	NAAQS	24
PM_{10}	24-Hour	72	115	187	50	CAAQS	374
	Annual Arith. ~~Geo~~. Mean	15	48.6 ~~38.6~~	63.6 **~~53.6~~**	20 ~~30~~	CAAQS	318 **~~179~~**
CO	1-Hour	193	8,000	8,193	23,000	CAAQS	36
	8-Hour	111	4,000	4,111	10,000	CAAQS	41
SO_2	1-Hour	19	73	92	655	CAAQS	14
	3-Hour	12	63	75	1,300	NAAQS	6
	24-Hour	5.5	47	52.5	105	CAAQS	50
	Annual	0.2	5	5.2	80	NAAQS	7
H_2S	1-Hour	16.2	24.6	40.8	42	CAAQS	97

Source: CEOE 2002a. AFC Tables 5.1-54 (NO_2), 5.1-62 (CO),and 5.1-73 (SO_2). CEOE 2003b. Attachment AQ4 – PSA Revised Modeling Table 5.1-47 (H_2S).

Note(s):

a. Background concentration values for this table and all other modeling result tables have been adjusted to the staff recommended values shown in **AIR QUALITY Table 9**.

b. The ozone limiting method (ISC3OLM) was used for 1-hour NO_2 concentrations. The ambient ratio method (factor 0.75) for rural areas was used for annual NO_2 concentrations.

AIR QUALITY Table 23
Staff Construction Modeling Results

Pollutant	Averaging Period	Project Impact ($\mu g/m^3$)	Background Concentration ($\mu g/m^3$) [a]	Total Impact ($\mu g/m^3$)	Limiting Standard ($\mu g/m^3$)	Type of Standard	Percent of Standard (%)
PM_{10}	24-Hour	39	115	154	50	CAAQS	308
	Annual Arith. ~~Geo~~. Mean	4.7	48.6	**53.3**	20 ~~30~~	CAAQS	267**~~178~~**

AIR QUALITY Table 24
Applicant Operation ISC Modeling Results

Pollutant	Averaging Period	Project Impact ($\mu g/m^3$)	Background Concentration ($\mu g/m^3$) [a]	Total Impact ($\mu g/m^3$)	Limiting Standard ($\mu g/m^3$)	Type of Standard	Percent of Standard (%)
NO_2 [b]	1-Hour	209	180	389	470	CAAQS	83
	Annual	0.5	19	19.5	100	NAAQS	20
PM_{10}	24-Hour	2.3	115	117.3	50	CAAQS	235
	Annual Arith. Mean ~~Geometric~~	0.3	48.6 ~~38.6~~	48.9 ~~38.9~~	20 ~~30~~	CAAQS	245 ~~130~~
CO	1-Hour	1,121[c]	8,000	9,121	23,000	CAAQS	40
	8-Hour	458[c]	4,000	4,458	10,000	CAAQS	45
SO_2	1-Hour	22 [c]	73	95	655	CAAQS	15
	3-Hour	16 [c]	63	79	1,300	NAAQS	6
	24-Hour	7.0 [c]	47	54	105	CAAQS	51
	Annual	0.08	5	5.1	80	NAAQS	6
H_2S	1-Hour	12.0	24.6	36.6	42	CAAQS	87

Source: CEOE 2002a, Tables 5.1-43 (PM_{10}), 5.1-57 (NO_2), 5.1-65 (CO), and 5.1-78 (SO_2). CEOE 2003b. Attachment AQ4 – PSA Revised Modeling Table 5.1-49 (H_2S).
Note(s):
a. Background concentration values for this table and all other modeling result tables have been adjusted to the staff recommended values shown in **AIR QUALITY Table 9**.
b. The applicant lists only one diesel engine in the 1-hour modeling runs because the other two will not be tested while the original one is tested. A screening analysis indicated that the fire pump engine generated the highest NO_2 concentrations. The ambient ratio method (factor 0.75) for rural areas was used for annual NO_2 concentrations.
c. These values were determined through a review of the modeling output files provided by the applicant, which conflict with the CO and SO_2 concentration data given in AFC Tables 5.1-63, 64 for CO and Tables 5.1-74 to –76 for SO_2.

$PM_{2.5}$ Standard Implementation

The first full paragraph on page 2.1-14 of the FSA provides dated information that was updated in the discussion of the $PM_{2.5}$ standards on page 2.1-16 of the FSA and should be deleted in its entirety as follows:

> ~~The air agencies in California are now deploying $PM_{2.5}$ ambient air quality monitors throughout the state. $PM_{2.5}$ ambient air quality attainment plans, if needed, are due to the USEPA by 2005.~~

The third paragraph under the "Fine Particulate Matter ($PM_{2.5}$)" heading on page 2.1-16 of the FSA should be amended to read as follows:

> As **AIR QUALITY Table 7** indicates, the 1-year 98th percentile 24-hour average and annual average $PM_{2.5}$ concentration levels have generally been declining at the Brawley – Main Street, El Centro – 9th Street, and Calexico – Ethel Street monitoring stations since at least 1999. These monitoring stations are located approximately 13 miles, 26 miles, and 35 miles, respectively, from the proposed project site. The 3-year 98th percentile 24-hour average concentrations at all three stations have been below the ~~proposed C~~NAAQS of 65 $\mu g/m^3$ since at least 1999. The 3-year average of annual arithmetic means ~~(national annual average)~~ measured at Brawley – Main Street and El Centro – 9th Street monitoring stations, located closest to the proposed project site, are below the ~~proposed~~ NAAQS of 15 $\mu g/m^3$ and CAAQS of 12 $\mu g/m3$.

However, the 3-year average of annual arithmetic means measured at Calexico – Ethel Street monitoring station are greater than the NAAQS and CAAQS standards. The Salton Sea air basin is influenced by emissions from Mexico, primarily Mexicali, which may in part cause the Calexico monitoring site to exceed the annual ambient standard. Due to the border pollution effect, and its potential interpretation, it is uncertain how the EPA and CARB will determine attainment status of the $PM_{2.5}$ standards for the air basin.

Environmental Justice Section

Staff's final revisions to the Environmental Justice section, which considered findings from staff's revised commissioning emissions impact modeling analysis, were inadvertently left out of the FSA. The second paragraph of the Environmental Justice section (pgs 2.1-59 and 2.1-60) is corrected as follows:

The project's H_2S emissions, during initial commissioning, would have the potential to cause significant short-term impacts. The applicant has redesigned the steam venting system to lower the H_2S concentrations at release and has incorporated staff's suggested stack height of 80 feet. These design changes have reduced potential impacts from initial commissioning by a factor of two. However, the commissioning emissions, which were found by staff to have no economically feasible controls, still would have the potential to cause exceedances of the 1-hour state ambient air quality standard and will have the potential to cause nuisance odors and minor health impacts (such as nausea). Initial commissioning is a one-time event that is scheduled to last a total of only 14 days, and staff's conservative modeling frequency analysis indicated that exceedances of the CAAQS 1-hour H_2S standard, which is being used by staff as the significance threshold for H_2S impacts, would only be likely to occur in the elevated terrain of Obsidian Butte and Rock Hill. Obsidian Butte is unpopulated and private property of Imperial Irrigation District. Rock Hill is unpopulated but is used daily as an observation point for the Sonny Bono Wildlife Refuge; however, the people frequenting Rock Hill are not just from the local area and use the Refuge at their own discretion. The modeling frequency analysis indicated it was unlikely that the CAAQS would be exceeded at the residential and work areas inhabited by the area's minority or low-income population. Additionally, the applicant will be required, by Condition of Certification **AQ-1** to provide public notice prior to initial commissioning and will also be required to perform ambient monitoring and meet other requirements during initial commissioning that are designed to reduce the potential for significant impacts. The public notification requirement would provide users of Obsidian Butte and Rock Hill the information necessary to avoid these potential impacts at their own discretion. Therefore, it is staff's conclusion that temporary significant impacts caused by the initial commissioning activities would not cause a disproportional impact on the minority populations surrounding the project site.

Adequacy of Proposed Mitigation

Staff's final revisions to the Adequacy of Proposed Mitigation section for the commissioning emissions, which included consideration of the findings from staff's revised commissioning emissions impact modeling analysis, were inadvertently left out of the FSA. Additionally, staff has included a response to the applicant's contention that

the commission emission impacts have been mitigated. The first and third paragraphs of page 2.1-56 are corrected, and two new paragraphs on page 2.1-57 are added as follows:

(Page 2.1-56 first paragraph corrections)

The modeling analysis indicates that the unmitigated commissioning H_2S emissions have the potential to cause exceedances of the one-hour H_2S CAAQS. Staff has determined that initial commissioning period operations have the potential to cause significant unmitigated H_2S impacts. The commissioning period is expected to last two weeks. The maximum modeled H_2S impact concentration for commissioning (0.07 ppm, including background) is orders of magnitude lower than the Occupational Health and Safety Administration (OSHA) worker ceiling limit of 10 ppm, or the National Institute for Occupational Safety and Health (NIOSH) Immediately Dangerous to Life or Health (IDLH) concentration of 300 ppm. However, this level is much higher than the lower odor threshold for H_2S (0.0005 ppm) and the H_2S odors may be noticeable as far as Calipatria during initial commissioning. These odor impacts, depending on wind conditions, have the potential to be of nuisance in the elevated terrain areas closer to the project site such as Obsidian Butte or Rock Hill that is located in the Sonny Bono Wildlife Refuge. Therefore, the H_2S emissions during initial commissioning have the potential to cause "nuisance, or annoyance to any considerate number of persons or to the public" in violation of California State Health and Safety Code, Section 41700.

(Page 2.1-56 third paragraph corrections)

Staff believes that the CAAQS is an appropriate significance criteria both for LORS compliance and CEQA health and nuisance impacts. The commissioning impacts analysis has shown that the CAAQS could be exceeded at locations far from the site and a modeling frequency analysis indicated that under average ambient conditions, excedances of the CAAQS would be expected for 5 hours at Obsidian Butte and one hour at Rock Hill, but no exceedances would be expected to occur at any residential areas surrounding the project site. Additionally, it is important to note that shorter term (i.e. less than an hour) acute concentrations could be five to ten times higher than the maximum one-hour averages. Considering all of the above, staff has made the determination that initial commissioning will create temporary significant impacts in the elevated terrain at Obsidian Butte and Rock Hill. While these elevated terrain areas do not have residential or full-time worker populations they are accessible to the general public or workers, and in the case of Rock Hill used on a regular basis.

(Page 2.1-57 two new paragraphs to be inserted after the first partial paragraph)

The applicant contends, in its comments on the FSA (CEOE 2003d), that staff has not been consistent in its approach regarding its significance determination. Staff is not bound by any decision or finding made in any other case, each case must be evaluated on its own merits. The construction emission modeling analyses identified for those other projects,(i.e. Metcalf, Magnolia, etc.) by the applicant in their comments, were oversimplified and provided unreasonably conservative results; while the modeling analysis performed by staff for the SSU6 commissioning

emissions was extremely detailed and included a frequency analysis to determine the actual likelihood of CAAQS exceedances. Staff can recognize when modeling approaches are overly simplified and can make findings based on that recognition. If complex modeling analyses, as staff performed for the SSU6 commissioning emissions, were to have been performed for the past cases (i.e. Metcalf, Magnolia, etc.) identified by the applicant in their comments the impact values would have been much lower than identified and based on staff's experience no new exceedances would have been found. Staff commends the efforts that the applicant has made to eliminate the significant H_2S impacts from the temporary operations and reduce the impacts from initial commissioning, and staff performed the detailed modeling frequency analysis in order to provide a determination of actual impact potential, which staff had hoped would show that no significant impacts would be expected from the project's initial commissioning. However, the results of this detailed modeling analysis found that exceedances of the CAAQS (i.e. the significance criteria) would be likely to occur at Obsidian Butte and Rock Hill.

The applicant also contends, in its comments on the FSA (CEOE 2003d), that staff has not properly considered the H_2S commissioning emission offsets from the Leathers facility that are being required by the District. The SSU6 H_2S emissions are estimated to be 8.7 tons over the duration of the initial commissioning activities (354 hours), which if sustained would be equivalent to a rate of 215 tons per year, and the maximum emission rate during the worst-case commissioning activities if sustained would be equivalent to an emission rate of over 1,000 tons per year. The total Leathers H_2S emission reduction is expected to be between 50 to 80 tons per year, so the daily emission reductions from the Leathers facility will only be a small fraction of the SSU6 daily initial commissioning emissions. Additionally, the SSU6 initial commissioning emission sources are very concentrated emission sources (as high as 170,000 ug/m^3 upon release) while the unmitigated Leathers facility H_2S emissions are diluted through the cooling tower exhaust. Finally, the Leathers facility is located several miles east northeast of the SSU6 project site and much further away from Obsidian Butte and Rock Hill, so any emission reductions at Leathers would not cause H_2S concentrations reductions at Rock Hill and Obsidian Butte at the same time or to the same intensity as the impacts that will occur to those areas when they are being impacted by the SSU6 initial commissioning activities. Therefore, staff finds that the Leathers emission reductions due to their quantity, concentration and location would not provide any significant reduction to the short-term CAAQS exceedences that are expected to occur in the elevated terrain areas located near the project site during initial commissioning.

CONDITIONS OF CERTIFICATION

STAFF CONDITIONS

AQ-C3 The on-site AQCMM shall submit to the CPM, in the monthly compliance report (MCR), a construction mitigation report that demonstrates compliance with the following mitigation measures:

a) All unpaved roads and disturbed areas in the project and linear construction sites shall be watered until sufficiently wet. The frequency of watering can be reduced or eliminated during periods of precipitation.

b) The main access and egress routes to and from the SSU6 main construction site for construction employees and delivery trucks shall be paved prior to the initiation of construction. All internal power plant roads shall be paved as early as possible. Construction employees and delivery drivers shall use paved roads to access and leave the main construction site.

c) No vehicle shall exceed 10 miles per hour within the construction site.

d) The construction site entrances shall be posted with visible speed limit signs.

e) All vehicle tires shall be inspected and washed as necessary to be cleaned free of dirt prior to entering paved roadways.

f) Gravel ramps of at least 20 feet in length must be provided at the tire washing/cleaning station.

g) No construction vehicles can enter the construction site unless through the treated entrance roadways. Gravel pads shall be installed at all access points to prevent tracking of mud on to public roadways.

h) Construction areas adjacent to and above grade from any paved roadway shall be provided with sandbags or other measures as specified in the Storm Water Pollution Prevention Plan, to prevent run-off to the roadway.

i) All paved roads within the construction site shall be swept twice daily.

j) At least the first 500 feet of any public roadway exiting from the construction site shall be swept twice daily. The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions. Use of blower devices is expressly forbidden.

k) All soil storage piles and disturbed areas that remain inactive for longer than 10 days shall be covered, or be treated with appropriate dust suppressant compounds.

l) All vehicles that are used to transport solid bulk material and that have potential to cause visible emissions shall be provided with a cover, or the materials shall be sufficiently wetted and loaded onto the trucks in a manner to provide at least one foot of freeboard. Bedliners shall be used in bottom-dumping haul vehicles.

m) All construction areas that may be disturbed shall be equipped with windbreaks at the windward sides prior to any ground disturbance. The windbreaks shall remain in place until the soil is stabilized or permanently covered with vegetation.

n) Any construction activities that can cause fugitive dust in excess of the visible emission limits specified in Condition **AQ-C4** shall cease when the wind exceeds 25 miles per hour.

o) Diesel Fired Engines

(1) All diesel-fueled engines used in the construction of the facility shall be fueled only with ultra-low sulfur diesel, which contains no more than 15 ppm sulfur, as soon as it is available at a terminal that by road is no more than 35 miles from the project site.

(2) All diesel-fueled engines used in the construction of the facility shall have clearly visible tags issued by the on-site AQCMM that shows the engine meets the conditions set forth herein.

(3) All large construction diesel engines and drill rig engines, which have a rating of 50 hp or more, shall meet, at a minimum, the Tier 1 ARB/EPA certified standards for off-road equipment unless certified by the on-site AQCMM that a certified engine is not available for a particular item of equipment. In the event a Tier 1 CARB/USEPA certified engine is not available for any off-road engine larger than 50 hp, that engine shall be equipped with a catalyzed diesel particulate filter (soot filter), unless certified by engine manufacturers or the on-site AQCMM that the use of such soot filters is not practical for specific engine types. For the purposes of this condition, a Tier 1 diesel engine is "not available" or the use of such soot filters is "not practical" if the AQCMM in applying recognized industry practice certifies that:

- The Tier 1 diesel engine is not available. For purposes of this condition, "not available" means that a Tier 1 diesel engine certified by either CARB or USEPA is: (i) not in existence at any location for use by the project owner at or near the time project construction commences; (ii) in existence but the construction equipment is intended to be on-site for ten (10) days or less or (iii) not available for a particular piece of equipment.

- Despite the project owner's best efforts, use of the soot filter is not practical. For the purposes of this condition, "not practical" means any of the following: (i) the use of the soot filter is excessively reducing normal availability of the construction equipment due to increased downtime for maintenance and/or reduced power output due to an excessive increase in backpressure; (ii) the soot filter is causing or is reasonably expected to cause significant engine damage; (iii) the soot filter is causing or is reasonably expected to cause a significant risk to workers or the public; (iv) the construction equipment is intended to be on-site for ten (10) days or less or (v) other good cause approved by the CPM.

~~o) All diesel-fueled engines used in the construction of the facility shall be fueled only with ultra-low sulfur diesel, which contains no more than 15 ppm sulfur.~~

~~p) All large construction diesel engines, which have a rating of 100 hp or more, shall meet, at a minimum, the 1996 CARB or EPA certified standards for off-road equipment.~~

~~q) All large construction diesel engines and drill rig engines, which have a rating of 100 hp or more, shall be equipped with catalyzed diesel particulate filters (soot filters) that achieve the maximum control efficiency commercially feasible, unless certified by engine manufacturers or the on-site AQCMM that the use of such devices is not practical for specific engine types.~~

~~r) All diesel-fueled engines used in the construction of the facility shall have clearly visible tags issued by the on-site AQCMM that shows the engine meets the conditions AQ-C3(p) and AQ-C3(q) above.~~

p) The construction mitigation measures shall include necessary fugitive dust control methods required to maintain compliance with District Rule 800. Where there are similar measures the more stringent requirement shall apply. Where there is an actual conflict between these measures and a substantive control measure requirement of Rule 800, the Rule 800 requirement shall apply.

q) For backfilling during earthmoving operations, water backfill material or apply dust palliative to maintain material moisture or to form crust when not actively handling; cover or enclose backfill material when not actively handling; if required mix backfill soil with water prior to moving; dedicate water truck or large hose to backfilling equipment and apply water as needed; water to form crust on soil immediately following backfilling; empty loader bucket slowly; minimize drop height from loader bucket.

r) During clearing and grubbing, pre-wet surface soils where equipment will be operated; stabilize surface soil with dust palliative unless immediate construction is to continue; and use water or dust palliative to form crust on soil immediately following clearing/grubbing.

s) While clearing forms, use single stage pours where allowed; use water spray, sweeping and/or industrial shop vacuum to clear forms; and avoid use of high pressure air to blow soil and debris from the form.

t) During cut and fill activities, pre-water with sprinklers or wobblers to allow time for penetration; pre-water with water trucks or water pulls to allow time for penetration.

u) Post a publicly visible sign with the telephone number and person to contact regarding dust complaints. This person shall respond and take corrective action with 24 hours.

v) Building pads should be laid as soon as possible after grading unless seeding or soil binders are used.

w) The project owner shall enforce reduced travel speed requirements by drilling and maintenance personnel on unpaved roadways under the control of CEOE.

Observations of visual dust plumes would indicate that the existing mitigation measures are not resulting in effective mitigation. The AQCMM shall implement the following procedures for additional mitigation measures if the

AQCMM determines that the existing mitigation measures are not resulting in effective mitigation:

i) The AQCMM shall direct more aggressive application of the existing mitigation methods within 15 minutes of making such a determination.

ii) The AQCMM shall direct implementation of additional methods of dust suppression if step a) specified above, fails to result in adequate mitigation within 30 minutes of the original determination.

iii) The AQCMM shall direct a temporary shutdown of the source of the emissions if step b) specified above fails to result in adequate mitigation within one hour of the original determination. The activity shall not restart until one full hour after the shutdown. The owner/operator may appeal to the CPM any directive from the CMM to shutdown a source, provided that the shutdown shall go into effect within one hour of the original determination unless overruled by the CPM before that time.

Verification: In the MCR, the project owner shall provide the CPM a copy of the construction mitigation report and any diesel fuel purchase records, which clearly demonstrates compliance with condition **AQ-C3**.

AQ-C7 ~~No later than 2006, a~~All diesel-fueled engines used in the operation and maintenance of the facility shall be fueled only with ultra-low sulfur diesel, which contains no more than 15ppm sulfur, as soon as it is available at a terminal that by road is no more than 35 miles from the plant site.

Verification: The project owner shall maintain for inspection fuel purchase, or other, records indicating the fuel sulfur content of the diesel fuel being used at the site.

AQ-C13 The project owner shall ~~biennially~~ provide an Ammonia Control Technology and Alternative Water Source Report to the CEC on advances in ammonia control technologies and availability of new alternative cooling water sources. The project owner shall, within two years of identifying any technology or alternative cooling water source that can be implemented at an annualized cost of less than $500 per ton of ammonia emissions reduced, implement such technology or alternative cooling water source provided such implementation will not cause other significant environmental impacts. Alternatively, the applicant may reduce ammonia emissions from other sources, including but not restricted to their other geothermal power plants, in the amount necessary to offset the SSU6 annual emissions as determined through **AQ-C12~~3~~**.

Verification: The ~~biennial~~ Ammonia Control Technology and Alternative Water Source Report shall be submitted to the CPM by December 15th of the calendar year that is two years after the completion of the initial commissioning of the plant, and subsequently every five~~two~~ years thereafter by December 15th until such time that ammonia controls have been applied to the SSU6 plant or ammonia mitigation has been applied to other sources as allowed in the condition.

SSU6 DISTRICT CONDITIONS

COMMISSIONING PERIOD CONDITIONS

AQ-1 At least 60 days before commissioning, the project owner shall submit a Commissioning Plan. The Plan shall include the following:

1. A public noticing of the commissioning.
2. An H_2S monitoring and mitigation program during the commissioning period.
3. An updated scheduling time for all start-up events as proposed in AIR QUALITY Table 20 Plant Commissioning Schedule.
4. Reporting of all monitoring and commissioning events

Verification: At least sixty days prior to the commissioning period, the project owner/operator shall submit a Commissioning Plan to the District~~, CARB, USEPA~~ and the CPM. The plan shall include an H_2S monitoring and mitigation program, a schedule for all start-up events, public noticing and reporting requirements. Prior to commissioning, the project owner shall provide documentation of public noticing to the District, ~~CARB, USEPA~~ and the CPM.

AQ-2 The Commissioning Plan may be revised if found necessary by the CPM or APCD.

Verification: The project owner shall submit the Commissioning Plan and any updates of the Plan to the District~~, CARB, USEPA~~ and CPM for review and approval prior to the commissioning period.

AQ-3 The Commissioning Plan must be approved by the CEC and APCD before commissioning can commence.

Verification: The project owner shall submit the Commissioning Plan and any updates of the Plan to the District, ~~CARB, USEPA~~ and CPM for review and approval prior to the commissioning period.

EMISSION OFFSETS

AQ-5 The project owner shall provide, ***before*** the construction, placement or testing of any emission source(s), offsets in tons listed per source or sources listed below in TABLE A: Offsets may be in the form of ERCs (Emission Reduction Credits) owned by certified ERC holders registered with the Imperial County Air Pollution ERC Agricultural or Stationary Bank. ERCs must be transacted and validated through the APCD. New well drilling will not coincide with any other stationary emissions source for the entire project that will trigger offsets for other pollutants (other than NO_x and PM_{10}) greater than 137 lbs/day threshold. The actual calculated emissions per source has been multiplied by the ratio 1.2 to 1 to comply with offsetting ratio requirements of Rule 207 for permanent stationary sources and 1 to 1 for temporary sources.

TABLE A

Source(s)	Offset Amount	Offset Source
SS Unit 6 (21.1 tpy) x 1.2 + temporary emissions (0.9 tpy) x1	26.21 tons H_2S	Leathers LP 38 MWe Geothermal Power Plant (70 tons/yr H_2S uncontrolled) control with Biofilters, sparging or APCD approved system
Well Flow Testing (temporary)	5.00 tons H_2S 29.8 tons PM_{10}	H_2S from Leathers LP emission control PM_{10} from ERC Stationary or Ag Bank
SS Unit 6 PM10 (permanent) (Mitigation agreement July 24, 2003)	19.6 tons PM_{10}	ERC Stationary or Ag Bank
Commissioning (temporary)	8.7 tons H_2S 5.63 tons PM_{10}	H_2S from Leathers LP emission control PM_{10} from ERC Stationary or Ag Bank

Verification: The project owner/operator must submit all H_2S ERC documentation to the District and the CPM prior to the start of construction. At least 30 days prior to project commissioning, the project owner shall identify and surrender the permanent and commissioning operations PM_{10} ERCs to the District in the amount shown above and shall provide the CPM with documentation of the ERC surrender. Until such time as the project owner has committed traditional stationary source ERCs to cover the entire permanent offset burden, the project owner shall annually provide to the CPM and the District the agricultural burn secession ERCs being used to offset the project's PM_{10} emissions prior to each calendar or operational year, as required by the District. The project owner shall identify and surrender the well flow testing PM_{10} ERCs to the District as required in the District permit.

MONITORING

AQ-28 The project owner shall submit to the APCD the H_2S concentration (ppmv) and H_2S mass flow (lb/hr) measured at the non-condensable gas line before the abatement on a monthly basis. The project owner shall measure the efficiency of the cooling tower oxidizer boxes by measuring the flow rate and H_2S concentration of the condensate inlet and the H_2S outlet (rain) of the oxidizer boxes on a weekly basis and; the project owner shall measure the pH and temperature of the condensate at the inlet of the oxidizer boxes on a weekly basis. All sampling and analysis shall be performed on the same day. The project owner shall source test all cooling tower shrouds annually.~~The Project owner shall measure and submit to the APCD monthly H_2S brine concentrations prior to flash.~~

Verification: The data required in this condition shall be submitted to the APCD monthly and shall be provided to the CPM in the Quarterly Operations Reports.

REFERENCES

CEOE (CE Obsidian Energy, LLC, Calipatria, California) 2003d: CE Obsidian Energy LLC's Comments on the Salton Sea Unit 6 Final Staff Assessment Part 2 (Air Quality, Public Health, and Alternatives). October 6, 2003.

District (Imperial County Air Pollution Control District) 2003c: District Comments on the Final Staff Assessment. Revised on October 7, 2003.

BIOLOGICAL RESOURCES

Supplemental Testimony of Natasha Nelson

Staff offers the following corrections and updates to the Biological Resources Section of the FSA. Changes and deletions are indicated by striking through the deleted portions of text and underlining the substituted language or new text. These changes reflect the comments from the applicant in writing and at subsequent workshops held October 1, and October 9, 2003, as well as continued information from the agencies involved with the review process.

CHANGE IN MOUNTAIN PLOVER STATUS

The U.S. Fish and Wildlife Service announced on September 9, 2003 that the listing of mountain plover was unwarranted because threats were not as severe as earlier believed (USFWS 2003e). The following pages require changes to reflect the change in federal status.

Page 4.2-10, Biological Resources Table 1

Charadrius montanus (mountain plover) ~~FPT--~~, CSC

Page 4.2-11 to 4.2-12

Mountain Plover (*Charadrius montanus*). Mountain plover is ~~a federally proposed threatened species and~~ a state Species of Concern, but is no longer being considered for federal protection (USFWS 2003e). Current estimates are that Imperial Valley provides wintering habitats for about one-half of the global population (Wunder and Knopf 2002). Mountain plover predominately use either alfalfa fields grazed by sheep or cattle, fallow fields of any crop type, and also use recently burned Bermuda grass fields and sprouting wheat fields (Wunder and Knopf 2002). The amount of suitable habitat in the Imperial Valley varies slightly across the landscape and over time, but about 500,000 acres of the Salton Sea Basin is in grass seed production, hay and pasture and about 155,000 acres is in wheat which makes the majority of the basin suitable for mountain plover (US Census 1997). The species is documented within the project area (CEOE 2002a, page 5.5-8).

CHANGE OF FEDERAL LEAD AGENCY AND CDFG DETERMINATION THAT NO CESA CONSISTANCY PERMIT WAS NEEDED

The federal lead agency for consultation with the U.S. Fish and Wildlife Service changed on September 9, 2003 from the Bureau of Land Management to the U.S. Army Corps of Engineers (USACE 2003b). Staff made assumptions about timelines and schedules in their testimony based on the Bureau of Land Management's process for a California Desert Conservation Act Plan Amendment (Plan Amendment). While the Plan Amendment is still being pursued, the Biological Opinion will be implemented with the issuance of the U.S. Army Corps of Engineers Clean Water Act 404 permit for discharges into federal jurisdictional waters.

The California Department of Fish and Game (CDFG) has determined they do not need to issue a California Endangered Species Act (CESA) consistency determination for desert pupfish (October 1, 2003 workshop, Jack Crayon). The following pages require changes to reflect the change in the federal lead and state agency roles.

Page 4.2-1 Clean Water Act of 1977

Title 33, United States Code, sections 1251-1376, and Code of Federal Regulations, part 30, section 330.5(a)(26), prohibit the discharge of dredged or fill material into the waters of the United States without a permit. The administering agency is the U.S. Army Corps of Engineers (USACE). The applicant has submitted an application for a Section 404 permit for its proposed impacts to wetlands along McKendry Road and for jurisdictional water impacts to the ephemeral desert washes between the switching station and the L-line. The USACE can provide its permit within a few days of receiving the mitigation package, all federal permits, and the Regional Water Quality Control Board's 401 permit for discharges.

Page 4.2-4 Regional Water Quality Control Board

By federal law every applicant for a federal permit or license for an activity which may result in a discharge into a water body must request state certification that the proposed activity will not violate state and federal water quality standards. The project owner may need a CWA section 401 certification from the Colorado River Basin Regional Water Quality Control Board (RWQCB). The RWQCB provides its certification after reviewing the ~~federal permits provided by the USACE.~~the Energy Commission Final Decision.

Page 4.2-42

Paragraph 1: The ~~BLM~~ USACE is the federal lead for this consultation (USACE 2003b), and with issuance of the Biological Opinion and CDFG Conformance Determination, the project owner will understand what actions it will need to take to be in compliance with the state and federal ESA.

Paragraph 4: Once the ~~BLM~~ USACE has issued their ~~Right-of-Way~~Clean Water Act 404 permit in December 2003, which must incorporate all the Terms and Conditions from the USFWS Biological Opinion, the applicant would be in compliance with this Act (see Condition of Certification ~~LAND-7~~ **BIO-11**).

Page 4.2-49 Federal Biological Opinion

Since the project may impact federally listed species, in particular the California brown pelican and Yuma clapper rail, the applicant must obtain a "take" permit from the USFWS. The "take" of these two species is being pursued on the applicant's behalf by the ~~Bureau of Land Management~~ USACE under Section 7 of the Endangered Species Act. As of June 2003, the Biological Assessment had been deemed adequate and consultation has begun. The USFWS Biological Opinion to the ~~Bureau of Land Management~~ USACE will most likely not be provided until at least October 24, 2003. The Biological Opinion does not go into effect (e.g., the applicant cannot start construction) until ~~Bureau of Land Management~~ USACE issues its permit conditions to the applicant for construction and operation of the project. The ~~BLM~~ USACE process may take up to one ~~month~~ week after the Biological Opinion is issued.

State Incidental Take Permit

CDFG will not require this project to secure a state Incidental Take Permit to comply with the state's Endangered Species Act. ~~This permit is issued about 30 to 60 days after the issuance of the USFWS Biological Opinion. The applicant will not be able to start construction until after this permit is obtained. Once this permit is secured, the project owner will need to incorporate the take permit's terms and conditions into its BRMIMP prior to any ground disturbance activity and implement the required mitigation measures during project construction and operation.~~ Thus, there is no authorized take (harassment or harm) of desert pupfish, California brown pelican, least Bell's vireo, Yuma clapper rail, or California black rail during the construction, operation, or maintenance of the proposed project.

Page 4.2-50 BLM Right-of-Way Permit

~~The BLM is the federal lead on the project and has requested consultation from USFWS on the entire project.~~ During ~~their~~ the Bureau of Land Management's review of a Right-of-Way application, they require an alternatives analysis of a~~n~~ transmission line interconnection which does not cross federal lands. At the end of their permitting review, the BLM can choose the non-federal route as the preferred alternative and deny the application to cross federal lands. ~~If this occurs, the applicant does not have a federal lead to request Section 7 consultation from the USFWS.~~ Thus, if the BLM does not choose the federal land route, the applicant ~~cannot start construction until it has obtained a Section 10 permit from the USFWS (also known as a Habitat Conservation Plan). This could delay the start of construction for years because of the lengthy approval process involved with a Habitat Conservation Plan. Thus, the applicant should provide the Right-of-Way permit and/or CDCA Plan Amendment prior to construction to ensure that federal permitting of this project is possible~~ must then use their alternative route which parallels State Highway 86. This change would not increase the level of risk to biological resources so long as all pertinent Conditions of Certification are applied, but would eliminate the need for Condition of Certification **BIO-22**.

CONCLUSIONS

Various documents have not been received as mentioned in the Unresolved Issues Section of this document. The issuance of the ~~BLM Right-of-Way permit and CDCA Plan Amendment~~ USACE 404 Permit is the only assurance that the project will be covered for "take" of federally-listed species. Thus, staff recommends delaying construction until it receives this document.

~~Although, CDFG will not provide the state Incidental Take Permit until the Decision has been issued, it should not hold up certification. Staff has included conditions of certification to address the anticipated requirements of CDFG.~~

REQUEST FOR A NATIONWIDE PERMIT FROM U.S. ARMY CORPS OF ENGINEERS

The applicant requested a Nationwide permit for activities in the ephemeral desert washes between the switching station and the L-line from the U.S. Army Corps of Engineers in July 30, 2003 (CEOE 2003). The following pages require changes to reflect the change in the federal permitting.

Page 4.2-16 Switching Station

The proposed Salton Sea Unit 6 switching station is located on the west side of State Highway 86 at the intersection of Bannister Road. The station is next to a large wash where signs of coyote (*Canis latrans*), bobcat (*Felis rufus*) and kit fox (*Vulpes macrotis*) were detected in February 2002 (CEOE 2002a, Appendix K, Biological Assessment). The station and towers are both sited well outside of the wash, and a jurisdictional delineation determined there would be no impacts to waters of the U.S. ~~At this point, the work does not require a Nationwide Permit be issued, but if the design changed such that parts of the wash have a potential to be impacted, then one would be issued.~~ However, the tower access road and tower spur roads between the switching station and the L-Line are expected to impact 0.08 acres of waters of the U.S. (CEOE 2003).

Page 4.2-28

~~All~~ The jurisdictional wetlands impacted by the project are related to the installation of OB3 pipeline and road expansion (McKendry Road) and the installation of transmission line access roads and spur roads between the switching station and the L-line. The pipeline crossing the McKendry Road segment would be designed as a double-walled pipeline, encased in concrete, isolated by block valves at the well head and along the pipeline, and would be monitored both externally by daily visual inspections, and internally by pressure monitors. The ~~0.4~~ 0.18 acres of federal jurisdictional areas and the 0.3 acres of CDFG jurisdictional areas ~~affected~~ are broken down by habitat type below (CEOE 2002a, Appendix K, Jurisdictional Delineation Report):

0.05 acres of brackish marsh;

0.03 acres of other waters of the U.S. in the form of open water;

0.02 acres of desert sink scrub;

0.08 acre ephemeral desert wash; and

0.3 acres of tamarisk scrub.

CHANGES TO LANDSCAPE DESIGN

In response to USFWS questions about landscaping the site as a result of the Energy Commission licensing process (specifically Conditions of Certification **VIS-3** and **BIO-23**), the applicant submitted a specific landscaping proposal to Carol Roberts of the USFWS on September 10, 2003 (Raemy 2003). The applicant has proposed up to 50 mesquite and palo verde trees within 50 feet of the base of the levee road along the north boundary of the proposed project site. The USFWS will be issuing a Biological Opinion based on the assumption that the applicant's proposal is acceptable to the Energy Commission and the County. Biological Resources staff would be in favor of the applicant's proposal because it meets Policy 2 of the Imperial County General Plan's Conservation and Open Space Element, these trees will support migratory songbirds, and these trees are not likely to attract raptors searching for ground nesting birds. Any changes in the applicant's proposal may require an amendment to the Biological Opinion because of concerns that tall trees could increase predation on the federal and state-listed Yuma Clapper Rail which inhabits the marsh directly north of the proposed power plant project.

CONDITIONS OF CERTIFICATION

The applicant has requested changes of staff's Conditions of Certification, and staff has agreed to the following changes.

Preventative Design Mitigation Features

BIO-12 The project owner shall modify the project design to incorporate all feasible measures that avoid or minimize impacts to the local biological resources such as the following.

1. Design, install, and maintain transmission line poles, access roads, pulling sites, and storage and parking areas to avoid identified sensitive resources and preferentially use previous pull sites or already disturbed locations;

2. Avoid wetland loss to the extent possible when placing facility features;

3. Design, install, and maintain facilities to prevent brine spills from endangering adjacent properties and waterways that contain sensitive habitat;

4. Schedule disposal of brine within brine ponds as expeditiously as possible;

5. Design, install, and maintain facility lighting to prevent side casting of light towards wildlife habitat;

6. Insulate production and injection well pipelines and flanges;

7. Prescribe a road sealant that is non-toxic to wildlife and plants and use only fresh water when adjacent to wetlands, rivers, or drainage canals;

8. Equip steam blow piping with a temporary silencer that quiets the noise of steam blows to no greater than 74 dBA measured at a distance of 100 feet.

9. Design, install, and maintain transmission lines and all electrical components to reduce the likelihood of electrocutions of large birds by following the ~~latest~~ Avian Power Line Interaction Committee (APLIC)'s ~~suggested practices~~ *Suggested Practices for Raptor Protection on Power Lines: The State of the Art in 1996*; and

10. Route the reject reverse osmosis water to the service water pond in lieu of the brine ponds.

All mitigation measures and their implementation methods shall be included in the BRMIMP.

NO CHANGE TO THE VERIFICATION

Response to the Applicant's Protocol Level Surveys Comments

On January 9, 2003 staff held a workshop on the monitoring needs of the proposed project. The agencies attending (CDFG, USFWS, Salton Sea Refuge) requested pre-construction surveys using accepted protocols be required of the applicant for California black rail and Yuma clapper rail. In the April 2003 Preliminary Staff Assessment, staff identified in the verification for Condition of Certification BIO-14 that protocol level surveys would be needed for California black rail, Yuma clapper rail and flat-tailed horned lizard. The Conditions of Certification BIO-14 and BIO-15, as published in the Final Staff Assessment, are consistent with the multi-agency workshop discussions to date. At the October 9, 2003 workshop, the applicant requested that staff remove the word "protocol" from Conditions of Certification BIO-14 and BIO-15 and disagreed with the distance that protocol surveys would be required for around the power plant site.

When special status species are difficult to count, or when consistency in counting species is necessitated, experts develop a field-survey protocol that they feel could reasonably determine the presence/absence and/or population size of a special status species. The published recommendations from the expert(s) become the accepted protocol and are often published under either the CDFG or USFWS letterhead. A different survey method cannot provide the same level of accuracy and assurances that a protocol level survey can provide, and may be useless to the recovery team that has been assembled to monitor the species status. In some cases, staff has been told by the regulatory agencies that surveys outside of the prescribed protocol season are considered illegal by the team of experts (Jack Crayon, CDFG for Yuma clapper rail). The only survey method that would be approved by the staff is one that follows accepted protocol, so it is futile to change the Conditions to gain "reasonableness". Staff did however review both Conditions, and determined that since Yuma clapper rail protocol level surveys can only be done during the mating season, the Conditions must be changed to reflect this seasonal restriction (as found below).

Staff agrees that protocol level surveys for one mile from the power plant site may be excessive since project impacts would not extend that distance. Slight changes to both measures can be found below.

Pre-Construction Monitoring to Avoid Harassment or Harm

BIO-14 The project owner shall provide a baseline survey proposal in the BRMIMP. The CPM, in consultation with the CDFG, Refuge, the USFWS and any other appropriate agencies, will determine the acceptability of the baseline survey protocol(s), the survey area(s) and the Designated Biologist's prescription(s) for potential impacts.

Prior to mobilization, the project owner shall conduct baseline surveys for special status species at a level that establishes the occurrence and abundance of species. In addition, mapping of suitable habitat types will be completed for any special status species that potentially occur, but are not present at the time of the baseline survey. Mapping of suitable habitat types will also be completed for any species that can not be surveyed for because of protocol restrictions. The baseline surveys shall cover appropriate habitats within one-mile of the plant site and within 1,000 feet of all linears, unless

other areas are deemed more appropriate. If baseline surveys occur during a special-status species ~~is~~ mating or nesting season ~~at the time of baseline surveys~~, then protocol level surveys ~~to establish population sizes~~ in appropriate habitats within 1,000 feet of the plant site and within 1,000 feet of all linears will be completed prior to mobilization. The Designated Biologist shall make recommendations to the project owner to avoid or minimize impacts to the special status species based on completed baseline surveys and any protocol level surveys.

Verification: ~~The project owner shall provide a baseline survey proposal in the BRMIMP.~~ The baseline survey proposal shall include a list of target species and the survey techniques to be used. The list of target species must, at a minimum, include California brown pelicans, mountain plover, burrowing owl, Yuma clapper rail, California black rail, and flat-tailed horned lizard. In addition, a proposal for mapping suitable habitats shall, at a minimum, include Yuma clapper rail and mountain plover habitat. The baseline survey proposal shall establish indices (e.g., propensity for flight) for comparison with other monitoring efforts. The baseline survey proposal shall include the survey locations and their distance from the site or linears. The baseline survey proposal shall identify actions that can be taken to avoid or minimize impacts to the special status species (such as restricting construction to certain months or marking sensitive areas). ~~The CPM, in consultation with the CDFG, Refuge, the USFWS and any other appropriate agencies, will determine the baseline survey protocol(s) acceptability and the survey area(s).~~

The project owner shall provide copies of agency-approved survey protocols in the BRMIMP. At a minimum, the project owner shall include a copy of the agency-approved survey protocol for California black rail and Yuma clapper rail in the event that the baseline surveys show these species are mating or nesting within 1,000 feet of the proposed project. The BRMIMP shall identify at least two southern California or western Arizona biologists that hold a USFWS permit for surveying these species and include their contact information.

Results of the baseline surveys must be submitted to the CPM, USFWS, CDFG and Refuge no later than thirty (30) days prior to the start of mobilization. If protocol-level surveys are required, then the results shall be submitted to the CPM, USFWS, CDFG and Refuge no more than ten (10) days after completion and at least twenty (20) days prior to mobilization.

Construction Monitoring to Avoid Harassment or Harm

BIO-15 The project owner shall perform monitoring throughout construction to ensure construction-related impacts remain at or below levels of significance set forth in the BRMIMP. The monitoring results shall be compared to the pre-construction baseline surveys' indices and to other local population values.

~~Verification:~~ The project owner shall provide a monitoring proposal and indices for comparison to pre-construction baseline survey work within the BRMIMP.

Monitoring must include any sensitive species located during the pre-construction baseline survey and any areas identified as suitable habitat. If a special status species mating or nesting season begins at any time during the construction period, then protocol level surveys shall be completed for appropriate habitats within ~~one-mile~~ 1,000 feet of the plant site and within 1,000 feet of all linears or within specified areas in the Salton Sea Basin. The CPM, in consultation with the CDFG, Refuge, the USFWS and any other appropriate agencies, will determine the acceptability of the monitoring protocol(s) and survey area(s).

Verification: The project owner shall provide the results of the construction monitoring in the MCR. Protocol survey results shall be compiled into a separate report and submitted within four (4) weeks of completion. The construction monitoring results shall be compared by the designated biologist in the MCR to pre-construction indices established in the BRMIMP (e.g., increased number of flights) and to other local population values collected by the project owner or other entities.

Noise and Vibration Management to Avoid Harassment or Harm

BIO-16 The project owner shall prepare a detailed Noise and Vibration Assessment and Abatement Plan based on the final design of the facility to determine the most practicable measures to reduce/mitigate construction noise and vibration impacts. At a minimum, the Noise and Vibration Assessment and Abatement Plan shall address measures to:

- Reduce site grading and clearing, pile-driving and steam-blow noise levels to less than 85 dBA at the northern and western boundaries of the power plant site during the Yuma clapper rail mating and nesting season (March 1 to August 31);
- Ensure overall noise levels at the power plant site during the mating season of Yuma clapper rails (March 1 to May 31), will not exceed~~ed~~ the threshold of 60 dBA or propose a construction schedule which limits noise levels to less than 60 dBA around daybreak (morning civil twilight) and sunset;
- Ensure site grading and clearing and pile-driving vibrations levels are equal or less than 72 VdB at the northern and western boundaries of the power plant site during the Yuma clapper rail nesting season (June 1 to August 31); and

The project owner shall include a construction noise and vibration monitoring protocol. Other noise and vibration avoidance measures can be considered for approval by the CPM in consultation with involved agencies.

Verification: The project owner shall submit two copies of the Noise and Vibration Assessment and Abatement Plan to the CPM for review and approval and one copy to the CDFG, Refuge, and USFWS for review and comment ~~90~~ 60 days prior to start of any site (or related facilities) mobilization. The Noise and Vibration Assessment and Abatement Plan shall identify all noise and vibration sources by construction phase, the location of all biologically related sensitive receptors, and the noise and vibration levels

expected after the implementation of mitigation. The CPM, in consultation with the CDFG, Refuge, USFWS and any other appropriate agencies, will determine the Noise and Vibration Assessment and Abatement Plan's acceptability within 45 days of receipt.

The project owner shall, at a minimum, appoint a person(s) to collect weekly noise measurements at the original Noise Measurement Locations ML2, ML3 and ML4 for a 1-hour period. The results shall be utilized as follows:

If noise measurement is outside of Yuma clapper rail mating and nesting season (September 1 to February 28) and exceeds 60 dBA, it shall be highlighted in the data table for the MCR and the reasons for the noise level (if known) described.

If a noise measurement during the Yuma clapper rail mating and nesting season (March 1 to August 31) is 85 dBA or above, then the loudest and nearest noise source(s) shall be immediately shut-down until the noise level is again below 85 dBA. The restriction on noise levels above 85 dBA is in effect for 24-hours a day, 7 days a week from March 1 to August 31. Any incident over 85 dBA shall be highlighted in the data table for the MCR and the reasons for the noise level (if known) described.

If a noise measurement is within Yuma clapper rail mating season (March 1 to May 31) and is below 85 dBA but exceeds 60 dBA, then pieces of construction equipment shall be stopped, moved, or quieted such that resultant noise levels are less than 60 dBA. Construction work need only be stopped or quieted for 1 hour after morning civil twilight and 1 hour before evening civil twilight. If 24-hour construction is required, everyone on the agency call list shall be notified as to the expected noise level, the equipment in use, and the remedial actions that are recommended (if any). The remedial action(s) should be implemented after approval by agency staff.

The noise measurements and any remedial actions taken shall be described in the MCR.

Overhead Transmission Line Monitoring to Avoid Harassment or Harm

BIO-17 The project owner shall install an agency-approved marker on the grounding wire of the proposed transmission lines. These markers shall be placed and maintained ~~for the entire length of~~ on the highest-bird-use portions of the proposed transmission lines (initially Mileposts L0 to L6, M0 to M1, M3 to M6, and M8 to M9.5). Monitoring of the ~~effectiveness of the markers~~ entire 31 miles of proposed transmission line, and sections of unmarked but comparable transmission line in the study area, shall be implemented for the first two years of operation, and may continue for up to ten years (to determine effectiveness of remedies) if impacts are found to be excessive by a working group of interested agency personnel. Remedial actions to address ~~excessive~~ collision deaths shall be included in a Bird Collision Deterrent Proposal and Monitoring Plan. The project owner must implement the CPM-approved remedial actions where ever high bird use and evidence of bird collisions are found during post-construction monitoring, and measure the effectiveness of the remedial measure for reducing impacts for at least one year following their implementation.

Verification: The project owner shall submit two copies of a Bird Collision Deterrent Proposal and Monitoring Plan (BCDM Plan) to the CPM for review and approval and one copy to the CDFG, Refuge, USFWS for review and comment 60 days prior to start of transmission line mobilization. The BCDM Plan shall identify all Species of Concern, the threshold used for determining impacts, the proposed type and spacing of markers, the post-construction monitoring plan, and remedial actions. The first monitoring report shall be due to the CPM, Refuge, CDFG and USFWS three months after completion of the transmission line construction, and the second monitoring report shall be due to the same parties at six months. A two-year summary report which summarizes all actions taken, compiles all the monitoring data, and includes an evaluation of effectiveness of the markers is due two years after the completion of the transmission line construction. A working group of interested agency personnel shall meet after submittal of the second monitoring report to determine if remedial actions need to be implemented and the timeline for their completion. The project owner must implement the CPM-approved remedial actions following the timelines set by the working group of interested agencies. The BCDM shall include remedial actions such as marking of unmarked transmission line segments that show high bird use and collisions during the post construction monitoring, decreasing the spacing of markers on marked lines, and ~~. At least one~~ alternative transmission line routes ~~shall be proposed as a remedial action~~. Maintenance of markers for the life of the transmission line will be required for all areas determined in the two-year summary report to have high bird use and evidence of bird collisions. The CPM, in consultation with the CDFG, the Refuge, the USFWS and any other appropriate agencies, will determine the BCDM Plan's acceptability within 30 days of receipt.

REPLACE THE BIOLOGICAL RESOURCES CONDITION OF CERTIFICATION BIO-19 AS FOUND IN THE FSA WITH THE FOLLOWING:

Survey and Provide Habitat Compensation for Impacts to Burrowing Owls

BIO-19 The project owner shall survey for burrowing owl activities on the 80-acre parcel and along the transmission lines prior to site mobilization to assess owl presence. The project owner shall evaluate the potential impact to each burrowing owl occurrence using impact criteria reviewed by the CDFG and USFWS and approved by the CPM. The impact criteria will be based on type of activity, length of activity, distance maintained from the burrowing owl(s), and time of year. For impact determinations which require monitoring of burrowing owls, the monitoring must be done by a credentialed biologist approved by the CPM.

The project owner shall protect at least 6.5 acres of suitable land for each impacted pair of owls or impacted unpaired resident bird (as determined by the CPM-approved impact criteria). For each occupied burrowing owl burrow which must be destroyed, existing unsuitable burrows on the protected lands shall be enhanced (e.g., cleared of debris or enlarged) or new burrows installed at a ratio of 2:1. For example, if pre-construction surveys find 17 occupied owl burrows within the project's footprint, and monitoring determined 17 burrowing owl pairs were impacted, the project owner must create 34 new or improve 34

existing burrows and provide 110.5 acres of protected land. The actual requirement will be determined after the CPM reviews the burrowing owl pre-construction surveys and monitoring. Avoidance is preferred over mitigation of impacts.

Verification: At least 60 days prior to site mobilization, the project owner shall provide to the CPM for review and approval, and to the USFWS and CDFG for review and comment, the impact criteria that will be used to evaluate construction, maintenance, and operational impacts to burrowing owls. The project owner must submit to the CPM for approval the resume of any biologist (s) that will perform the burrowing owl monitoring at least one week prior to their assignment to start monitoring. If burrowing owl monitoring is needed, then a summary report completed by the Designated Biologist and all original data sheets shall be included in the MCR. At least 15 days prior to site mobilization, the project owner shall provide the CPM, USFWS, Refuge, and CDFG with the burrowing owl survey results. Burrowing owl surveys are valid only for 30 days.

Based on the number of burrowing owls identified as potentially impacted, the project owner shall identify the amount of land it intends to protect 15 days prior to construction. The project owner shall fund the acquisition and long-term management of the compensation lands in a form acceptable to the CEC and CDFG (e.g., provide a letter of credit or establish an escrow account) 15 days prior to construction. The project owner shall propose land for purchase or protection with a description of habitat types and propose a management and monitoring plan 90 days prior to commercial operation. The land protection proposal and management fund(s) shall be approved by the CPM and reviewed by CDFG.

The project owner shall rectify any underfunded amounts in the acquisition and long-term management account(s) at least 60 days prior to commercial operation. At least 30 days prior the start of commercial operation, the project owner shall submit to the CPM two copies of the relevant legal paperwork that protects lands in perpetuity (e.g., a conservation easement as filed with the Imperial County Recorder), a final land management and monitoring plan, and documents which discuss the types of habitat protected on the parcel. If a private mitigation bank is used, the project owner shall provide a letter to the CPM from the approved land management organization stating the amount of funds received, the amount of acres purchased and their location, and the amount of funds dedicated to long term monitoring or management at least 60 days prior to commercial operation. If fund remain after performance of all habitat compensation obligations, the monies in the letter of credit or escrow account will be returned to the project owner with written approval of the CPM.

All mitigation measures and their implementation methods shall be included in the BRMIMP.

ADD THE FOLLOWING NEW CONDITION OF CERTIFICATION

Provide Habitat Compensation for Permanent Disturbance to Burrowing Owl Habitat

BIO-25* Foraging habitat which is permanently destroyed shall be replaced at 0.5:1 (mitigation:impacts) and managed for the protection of burrowing owls. Based on these ratios, the project owner must protect and manage 42.65 acres of land for burrowing owls (40 acres for the power plant site and 2.65 acres for the transmission line pads). The mitigation amount can be reduced if mitigation land for the same burrowing owls is also being provided under Condition of Certification BIO-19.

Verification: At least 15 days prior to site mobilization, the project owner shall provide the CPM, USFWS, Refuge, and CDFG with the burrowing owl survey results. If burrowing owls are present where a permanent facility will be placed or within 300 feet of a permanent facility, the project owner shall identify the amount of land they intend to protect 15 days prior to construction. The project owner shall fund the acquisition and long-term management of the compensation lands in a form acceptable to the CEC and CDFG (e.g., provide a letter of credit or establish an escrow account) 15 days prior to construction. The land protection proposal and management fund(s) shall be approved by the CPM and reviewed by CDFG. The project owner shall propose land for purchase or protection with a description of habitat types and propose a management and monitoring plan at least 90 days prior to commercial operation.

The project owner shall rectify any underfunded amounts in the acquisition and long-term management account(s) at least 60 days prior to commercial operation. At least 30 days prior to commercial operation, the project owner shall submit to the CPM two copies of the relevant legal paperwork that protects lands in perpetuity (e.g., a conservation easement as filed with the Imperial County Recorder), a final management and monitoring plan, and documents which discuss the types of habitat protected on the parcel. If a private mitigation bank is used, the project owner shall provide a letter to the CPM from the approved land management organization stating the amount of funds received, the amount of acres purchased and their location, and the amount of funds dedicated to long term monitoring or management 60 days prior to commercial operation. If fund remain after performance of all habitat compensation obligations, the monies in the letter of credit or escrow account will be returned to the project owner with written approval of the CPM.

All mitigation measures and their implementation methods shall be included in the BRMIMP.

*ANYWHERE IN THE TEXT OF THE FSA WHERE BIO-19 IS REFERENCED, CONDITION OF CERTIFICATION BIO-25 SHOULD ALSO BE REFERENCED.

ADDITIONAL REFERENCES

CEOE (CE Obsidian Energy, LLC). 2003t. Letter to Army Corp of Engineers supplementing the delineation of jurisdictional waters for the transmission route. July 30, 2003.

Raemy, B.J. 2003. Email from Bernard Raemy of CalEnergy to Carol Roberts of U.S. Fish and Wildlife Service, Carlsbad Field Office. Transmitted September 10, 2003.

USACE (U.S. Army Corps of Engineers). 2003b. Letter to U.S. Fish and Wildlife Service Field Supervisor requesting concurrence that the project may affect, but is not likely to adversely affect a federally-listed as endangered species, Yuma Clapper Rail, Brown Pelican, Desert Pupfish, and Mountain Plover. September 9, 2003.

USFWS (U.S. Fish and Wildlife Service). 2003e. Endangered and Threatened Species; Withdrawl of the Proposed Rule to List the Mountain Plover as Threatened. Federal Register, Vol. 68, No. 174. pp. 53083-53101. September 9, 2003.

LAND USE

Supplemental Testimony of David Flores

Comment: The applicant reviewed and commented that incorrect square-foot area was provided for the Bannister Switching Station:

Response: The paragraph is corrected below:

BANNISTER SWITCHING STATION

An approximate ~~2,500~~ 250,000 square foot area of land owned by Imperial Irrigation District (IID) will be used for the siting of a switch yard, control house and communication tower. The site is located on Bannister Road, just west of State Route 86. Based upon information provided at workshops on August 19, and October 1, 2003, staff has reviewed the impacted agricultural lands and has revised the total number of acres for which mitigation is required. This is reflected in changes to **LAND-6** originally located in the FSA on page 4.5-14. The following corrections should be made:

Comment: Page 4.5-8, Imperial County encroachment and Development Permits, 1.3. The reference to the AFC in this sentence is incorrect. Please replace "AFC" with "FSA".
Response: Staff concurs and the sentence is reproduced correctly below:

Imperial County Encroachment and Development Permits

Imperial County will be requiring an encroachment permit for roadway improvements, and development permits for the 8-foot berm surrounding the project site. See the TRAFFIC and TRANSPORTATION and SOILS and WATER sections of the ~~AFC~~ FSA for the applicable requirements.

Comment: Page 4.5-9, Project Site, para.5, last sentence. The reference to the PSA in this sentence is incorrect. Please replace PSA with FSA.

Response: The corrected reference is noted, and is reproduced below:

These impacts are addressed in greater detail in the AIR QUALITY and VISUAL RESOURCES sections of the ~~PSA~~ FSA.

Comment: The applicant indicated that additional information on agricultural land would be provided at an August 19, 2003 workshop.

Response: After discussions, and review of materials submitted and recalculation of impacted agricultural lands, the following revisions to LAND-6 were made. Please re

LAND-6 The project owner shall mitigate for the loss of ~~173~~96-acres at a one to one ratio for the conversion of prime farmland as classified by the California Department of Conservation, to a non-agricultural use, for the construction of the power generation facility.

Verification: The project owner will provide a mitigation fee payment (payment to be determined) to an Imperial County agricultural land trust, or a statewide agricultural land

trust, within 30 days following the construction start, as set forth in a prepared Farmlands Mitigation Agreement.

The project owner shall provide in the Monthly Compliance Reports a discussion of any land and/or easements purchased in the preceding month by the trust with the mitigation fee money provided, and the provisions to guarantee that the land managed by the trust will be farmed in perpetuity. This discussion must include the schedule for purchasing ~~173~~96-acres of prime farmland and/or easements within five years of start of construction as compensation for the ~~173~~96- acres of prime farmland to be converted by the SSU6.

NOISE AND VIBRATION

Supplemental Testimony of Steve Baker

The following changes and clarifications are made to insure consistency between the Biological Resources and the Noise and Vibration sections, and in response to the applicant's comments submitted to the Energy Commission August 22, 2003.

NOISE Table 2
Imperial County General Plan Property Line Noise Limits

Zone	Time	1-hour Average Sound Level, dB
Residential	7 a.m. to 10 p.m.	50
	10 p.m. to 7 a.m.	45
Multi-Residential	7 a.m. to 10 p.m.	55
	10 p.m. to 7 a.m.	50
Commercial	7 a.m. to 10 p.m.	60
	10 p.m. to 7 a.m.	55
Light Industrial and Industrial Park	Anytime	70
General Industrial	Anytime	75

Source: Imperial 2001, Table 9

STEAM BLOW AND PILE DRIVING MANAGEMENT

NOISE-4 The project owner shall equip steam blow piping with a temporary silencer that quiets the noise of steam blows to no greater than 74 dBA measured at a distance of 100 feet. The project owner may conduct steam blows continuously, 24 hours per day, until completed.

The project owner shall ensure that noise from pile driving, measured at the northern and western boundaries of the power plant site, does not exceed 85 dBA L_{eq} during the Yuma clapper rail mating and nesting season (March 1 to August 31), and does not exceed 60 dBA L_{eq} around daybreak (morning civil twilight) and sunset during the mating season (March 1 to May 31). Alternatively, the project owner may schedule pile driving so that it does not occur during the mating and nesting season (from March 1 to August 31).

Verification: At least 15 days prior to the first steam blow, the project owner shall submit to the CPM drawings or other information describing the temporary steam blow silencer and the noise levels expected, and a description of the steam blow schedule.

At least 15 days prior to first pile driving, the project owner shall submit to the CPM a description of the pile driving technique to be employed, including calculations showing its projected noise impacts at the northern and western boundaries of the power plant site. Alternatively, this submittal may entail a description of the pile driving schedule, demonstrating that it does not occur between March 1 and August 31.

CONSTRUCTION TIME RESTRICTIONS

NOISE-8 Heavy equipment operation and noisy construction work relating to any project features that lie within 300 feet of residentially zoned property shall be restricted to the times of day delineated below:

Monday through Friday	7 a.m. to 7 p.m.
Saturday	9 a.m. to 5 p.m.
Sunday and Holidays	Not allowed

Heavy equipment operation and noisy construction work relating to any project features that would cause noise levels at ~~any area occupied by sensitive avian species (including the Yuma clapper railany area occupied by sensitive avian species (including the Yuma clapper rail)~~the northern and western boundaries of the power plant site to exceed 60 dBA L_{eq} shall be restricted as specified in Condition of Certification **NOISE-4**, above~~.to the times of day delineated below~~:
~~From March 1 through May 31:~~

~~One hour after morning civil twilight to one hour prior to sunset (as defined by U.S. Naval Observatory for Calipatria, CA)~~

~~From June 1 through February 28:~~

~~Monday through Friday~~	~~7 a.m. to 7 p.m.~~
~~Saturday~~	~~9 a.m. to 5 p.m.~~
~~Sunday and Holidays~~	~~Not allowed~~

Haul trucks and other engine-powered equipment shall be equipped with adequate mufflers. Haul trucks shall be operated in accordance with posted speed limits. Truck engine exhaust brake use shall be limited to emergencies.

Verification: Prior to ground disturbance, the project owner shall transmit to the CPM a statement acknowledging that the above restrictions will be observed throughout the construction of the project.

VISUAL RESOURCES

Supplemental Testimony of James Adams and Dale Edwards

Staff appreciates the FSA review comments from the applicant, and responds to each comment as follows:

1. Comment – Visual Resources Appendix VR 1. The analysis for KOP4, last column – Impact Significance with Mitigation – this cell erroneously states that the impacts are "Adverse and Significant". This needs to be changed to "Averse but less than Significant" for consistency with the analysis in the text.

   Response – Staff has made the change in the **Revised Appendix VR-1**. The revised table is attached to this addendum.

2. Comment – Page 4.12-35, **VIS-1**, para. 2. The project area is replete with unscreened agricultural staging areas located next to roads. Therefore, the applicant suggests removing the requirement to screen solely due to proximity to roads and to screen when within one-half mile of residences.

   Response – Staff believes that agricultural staging areas are less noticeable than staging areas for the proposed geothermal plant. The language in the condition should not change.

3. Comment – Additionally the portions of this (**VIS-1**) COC that address returning all project disturbed areas back to undisturbed conditions is identical to **BIO-18**, that required the preparation of a revegetation plan that addresses biological considerations of a revegetation program. Therefore, the Applicant suggests that the references to revegetation, grading, and contouring be removed from **VIS-1** to eliminate redundant requirements.

   Response – Staff agrees that removing this language, and relying upon requirements in **BIO-18** will achieve the necessary results. **VIS-1** is corrected as follows:

VIS-1 The project owner shall ensure that visual impacts of project construction are adequately mitigated. To accomplish this, the project owner shall require the following as a condition of contract with its contractors to construct the proposed project:

Laydown areas for linear facility construction shall be screened if they are visible from residences or adjacent roads within one-half mile. All evidence of construction activities, including ground disturbance due to staging and storage areas, shall be removed and remediated upon completion of construction to its pre-construction condition. ~~Any vegetation removed in the course of construction will be replaced on a 1-to-1 in-kind basis. Such replacement planting shall be monitored for a period of three years to ensure survival. During this period, all dead plant material shall be replaced.~~

The project owner shall submit a plan to the CPM for review and approval for screening laydown areas and restoring the surface conditions of any staging and storage areas and rights of way disturbed during construction of underground pipelines. ~~The plan shall include returning laydown and linear facility work areas to the original grade, contouring and revegetation.~~

The project owner shall not implement the restoration plan until receiving written approval from the CPM.

Verification: At least ninety (90) days prior to beginning implementation of surface restoration of construction impacts, including construction of linear facilities, the project owner shall submit the restoration plan to the CPM for review and approval.

If the CPM notifies the project owner that any revisions of the restoration plan are needed before the CPM will approve the plan, within thirty (30) days of receiving that notification, the project owner shall submit to the CPM a revised plan.

The project owner shall notify the CPM within seven (7) days after completing the surface restoration that it is ready for inspection.

4. Comment – Page 4.12-36, **VIS-2**, item a). The Applicant is requesting that this item a) be removed, because Visual Resources Figure 4B in the Final Staff already provides a color simulation of the facility painted in required colors, as seen form Rock Hill, the specific impact that the Final Staff Assessment indicates **VIS-2** was designed to mitigate.

   Response – Staff agrees. The revised VIS-2 is below:

VIS-2 Prior to start of commercial operation, the project owner shall treat project structures, buildings, production and injection wells and related pipelines, and fences visible to the public such that: their colors minimize visual intrusion and contrast by blending with the landscape; and their surfaces do not create excessive glare. A specific treatment plan shall be developed for CPM approval to ensure that the proposed colors do not unduly contrast with the surrounding landscape colors. The plan shall be submitted sufficiently early to ensure that any pre-colored buildings, structures, and linear facilities will have colors approved and included in bid specifications for such buildings or structures. Prior to submittal of the plan to the CPM, the project owner shall submit the plan to Imperial County for review and comment. The submittal to the CPM should include the County's comments. The treatment plan shall include:

~~a) specifications, and 11" x 17" color simulations, of the treatment proposed for use on project structures, including structures treated during manufacture;~~

a) list of each major project structure, building, tank, and fence specifying the color(s) proposed for each item;

b) samples of each proposed treatment and color on the materials to which they are to be applied for major structures;

c) documentation that a non-reflective finish will be used on all project elements visible to the public;

d) a detailed schedule for completion of the treatment; and

e) a procedure to ensure proper treatment maintenance for the life of the project.

After approval of the plan by the CPM, the project owner shall implement the plan according to the schedule and shall ensure that the treatment is properly maintained for the life of the project. The project owner shall install tubular steel transmission line structures in transmission corridors whenever possible, and away from residences to the extent possible. The steel poles should be coated with a neutral gray finish. The project owner shall install non-specular conductors.

For any structures that are treated during manufacture, the project owner shall not specify the treatment of such structures to the vendors until the project owner receives notification of approval of the treatment plan by the CPM.

The project owner shall not perform the final treatment on any structures until the project owner receives notification of approval of the treatment plan from the CPM.

APPENDIX VR 1
SALTON SEA POWER PLANT PROJECT VISUAL RESOURCES STAFF ASSESSMENT - SUMMARY OF ANALYSIS
CUMULATIVE IMPACT NOT SHOWN

VIEWPOINT		EXISTING VISUAL SETTING							VISUAL CHANGE					IMPACT SIGNIFICANCE	
				Viewer Exposure											
Key Observation Point (KOP)	Description	Visual Quality	Viewer Concern	Visibility	Number of Viewers	Duration of View	Overall Viewer Exposure	Overall Visual Sensitivity	Description of Visual Change	Visual Contrast	Project Dominance	View Disruption	Overall Visual Change	Mitigation / Conditions	Impact Significance with Mitigation
KOP 1 **Figure 1a, 1B**	View to the south from an access road about 600 feet west of the entrance to the Wildlife Headquarters about 4000 feet north of the proposed project.	**Low to Moderate** Prominent features are the canal, agricultural fields, existing geothermal units to the east and southwest.	**Low to Moderate** The predominant viewers at KOP-1 would be the agricultural workers who use the access road and the people driving into the Refuge. Viewer expectation would be moderate based on the visual quality of the view from this KOP.	**Low**	**Moderate**	**Low**	**Low**	**Low to Moderate**	The proposed project would introduce the prominent geometric forms and vertical and horizontal lines of the various structures and stacks.	**Moderate**	**Co-dominant**	**Low**	**Low to Moderate**	**none**	**Adverse but less than Significant**
KOP 2 **Figure 2a, 2B**	View looking south from the Red Island Recreation Area approximately two miles north of the project site	**High** The most prominent features in this view are the recreation area in the foreground, Salton Sea in the middleground, Rock Hill and an agricultural area in the middleground, and mountain ranges in the background.	**Moderate to High** Visitors anticipate seeing a scenic vista of the Salton Sea and mountain ranges with some geothermal plants.	**Low to Moderate**	**High**	**Moderate**	**Moderate**	**Moderate**	The proposed project would introduce another geothermal unit with geometric forms and vertical and horizontal lines into the view to the south from KOP-2.	**Low**	**Subordinant**	**Low**	**Low**	**None**	**Adverse but less than Significant**
KOP 3 **Figure 3a, 3B**	View from residences on Lack Road looking northeast toward the project	**Low to Moderate** Features in this view are Lack Road, canal on the left and mountains in the background. Other features include the existing utility line, agricultural lands west and east of Lack Road, and existing geothermal facilities in the far middleground to background.	**Moderate** Viewers would be the occupants of the residences and workers who use Lack Road.	**High**	**Low**	**Moderate to High**	**Moderate**	**Moderate**	The project would introduce the horizontal form of the transmission lines and several prominent vertical electric transmission towers.	**Moderate**	**Co-dominant**	**Moderate to High**	**Moderate**	**None**	**Adverse but less than Significant**
KOP 4 **Figure 4A, 4B**	View from the top of Rock Hill looking south toward the project about one mile away	**Moderate to High** Features in this view are the Salton Sea in the foreground and middleground, agricultural areas and existing geothermal units in the middleground, and mountain ranges in the background	**High** Viewers would be the visitors to Rock Hill. Recreational users have high visual concern	**Moderate to High**	**Moderate**	**Moderate to High**	**Moderate to High**	**Moderate to High**	The project would introduce horizontal lines, industrial geothermal forms, visible plume, and an unchanging color similar to the existing geothermal units.	**Moderate to High**	**Co-dominant**	**Moderate**	**Moderate**	**VIS-2**	**<u>Adverse but less than Significant</u>** ~~**Adverse and Significant**~~
KOP 5 **Figure 5A, 5B**	View of SR-86 looking northwest about 600 feet from spot where the transmission line will cross the highway	**Moderate** Prominent features are the highway in the center of the view from foreground to background, fields and surface streets on both sides of the highway, existing utility line and poles on both sides of the highway, and mountain ranges in the background	**Moderate** Viewers would be motorists on the highway.	**Moderate to High**	**Moderate to High**	**Low**	**Moderate**	**Moderate**	The proposed project would introduce the prominent vertical forms of transmission line towers and the horizontal oriented transmission lines.	**Moderate to High**	**Co-dominant**	**Low to Moderate**	**Moderate**	**None**	**Adverse but less than Significant**
KOP-6 **Figure 6A, 6B**	View of SR-111 looking north from the spot where the transmission line would cross the highway	**Moderate** Principal features are the highway in the center of the view from foreground to background, desert landscape on both sides of the highway, existing utility line on the east side of the highway, and mountain range on the background	**Moderate** Viewers would be motorists on the highway	**Moderate to High**	**Moderate to High**	**Low**	**Moderate**	**Moderate**	The proposed project would introduce the prominent vertical forms of transmission line towers and the horizontal oriented transmission line.	**Moderate to High**	**Co-dominant**	**Low to Moderate**	**Moderate**	**None**	**Adverse but less than Significant**

WORKER SAFETY AND FIRE PROTECTION

Supplemental Testimony of Geoff Lesh and Rick Tyler

Staff has reviewed the suggested reference changes (three changes). The appropriate changes are below:.

Page 4-14.6:

Safety Programs as well as the Emergency Action Program/Plan, the Construction and Operation Injury and Illness Prevention Programs and the Fire Protection and Prevention Programs (CEOE 200~~3~~2a, Sections ~~8.16.2.1 and 8.16.2.2~~ 5.16.2.1 and 5.16.2.2). Prior to operation of the Salton Sea Unit 6 Project, all detailed programs and plans will be provided pursuant to condition of certification **WORKER SAFETY-2**.

Page 4-14.7:

Emergency Action Plan

California regulations require an Emergency Action Plan (Cal Code Regs., tit. 8, § 3220). The AFC contains a satisfactory outline for an emergency action plan (CEOE 2002a, Sections ~~8.7.3.1 and 8.7.3.2~~ 5.16.2.2.7 and 5.16.2.2.8).

Page 4-14-9:

Fire Protection

Staff reviewed the information regarding available fire protection services and equipment (CEOE 2002a, Sections ~~2.3.2~~ 4.3.3.3.1 and Fire Protection Systems and ~~8.16~~ 5.16.2 Worker Health and Safety) to determine if the project would adequately protect workers and if it would affect the fire protection services in the area.

GEOLOGY, MINERAL RESOURCES, AND PALEONTOLOGY

Supplemental Testimony of Dal Hunter, Ph. D., C.E.G.

Geology, Mineral Resources, and Paleontology staff appreciate the applicant's comments and suggested corrections to reference information submitted to the Energy Commission on August 22, 2003. Staff also concurs with the recommended change to language in **PAL-2**, provided in underlined language in the revision below.

PAL-2 The project owner shall provide to the PRS and the CPM, for approval, maps and drawings showing the footprint of the power plant, construction laydown areas and all related facilities. Maps shall identify all areas of the project where ground disturbance is anticipated. If the PRS requests enlargements or strip maps for linear facility routes, the project owner shall provide copies to the PRS and CPM. The site grading plan and the plan and profile drawings for the utility lines would normally be acceptable for this purpose. <u>The plan drawings shall show the location, depth, and extent of all ground disturbances and can be of sufficient scale to allow accurate recordation of any paleontological resource finds.</u> If the footprint of the power plant or linear facility changes, the project owner shall provide maps and drawings reflecting these changes to the PRS and CPM.

If construction of the project will proceed in phases, maps and drawings may be submitted prior to the start of each phase. A letter identifying the proposed schedule of each project phase shall be provided to the PRS and CPM. Prior to work commencing on affected phases, the project owner shall notify the PRS and CPM of any construction phase scheduling changes.

At a minimum, the project owner shall ensure that the PRS or PRM consults weekly with the project superintendent or construction field manager to confirm area(s) to be worked during the next week, until ground disturbance is completed.

<u>Verification:</u> At least 30 days prior to the start of ground disturbance, the project owner shall provide the maps and drawings to the PRS and CPM.

If there are changes to the footprint of the project, revised maps and drawings shall be provided to the PRS and CPM at least 15 days prior to the start or restart of ground disturbance.

If there are changes to the scheduling of the construction phases, the project owner shall submit a letter to the CPM within five days of identifying the changes.

GENERAL CONDITIONS

Supplemental Testimony of Connie Bruins

The applicant commented on General Conditions **COM-8** as follows:

> Page 7-9, COM-8, para.2. As presented in the Hazardous Materials Section of the FSA, the SSU6 project is not expected to be subject to either the state or federal Risk Management Programs due to the fact that no significant quantities of hazardous materials are proposed for onsite storage. Therefore, the applicant is requesting that the requirement of preparing a vulnerability assessment be removed from COM-8. This request is further supported by the title of the guidance document referenced in COM-8 (Chemical Vulnerability Assessment Methodology).

Staff Response: Staff agrees with the applicant regarding the vulnerability assessment requirement. The revised COM-8 in its entirety follows. Please remove COM-8 on pages 7-8 and 7-9 of the FSA Part 1, and replace with the following new version:

COM-8, Construction and Operation Security Plan

At least 14 days prior to commencing construction, a site-specific Security Plan for the construction phase shall be submitted to the CPM for review and approval. At least 30 days prior to the initial receipt of hazardous materials on-site, a site-specific Security Plan for the operational phase shall be submitted to the CPM for review and approval.

Construction Security Plan

The Construction Security Plan shall include the following:

1. site fencing enclosing the construction area;
2. use of security guards;
3. check-in procedure or tag system for construction personnel and visitors;
4. protocol for contacting law enforcement and the CPM in the event of suspicious activity or emergency; and
5. evacuation procedures.

Operations Security Plan

1. The Operations Security Plan shall include the following:
2. permanent site fencing and security gate;
3. evacuation procedures;
4. protocol for contacting law enforcement and the CPM in the event of suspicious activity or emergency;
5. fire alarm monitoring system;
6. site personnel background checks, including employee and routine on-site contractors [Site personnel background checks are limited to ascertaining that the

employee's claims of identity and employment history are accurate. All site personnel background checks shall be consistent with state and federal law regarding security and privacy;

7. site access for vendors; and
8. requirements for Hazardous Materials vendors to prepare and implement security plans as per 49 CFR 172.800 and to ensure that all hazardous materials drivers are in compliance with personnel background security checks as per 49 CFR Part 1572, Subparts A and B.
9. In addition, the Operations Security Plan shall include one or more of the following in order to ensure adequate perimeter security:
   a) security guards;
   b) security alarm for critical structures;
   c) perimeter breach detectors and on-site motion detectors; and
   d) video or still camera monitoring system.

The Project Owner shall fully implement the security plans and obtain CPM approval of any substantive modifications to the Security Plan. The CPM may authorize modifications to these measures, or may recommend additional measures depending on circumstances unique to the facility, and in response to industry-related security concerns.

REFERENCES

CEOE (CE Obsidian Energy, LLC) 2003u. Comments To: California Energy Commission Final Staff Assessment (Salton Sea Unit 6 Part 1, August 22, 2003.